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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHANKONG, DOHM

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,759

Applicant(s)

GARCIA-LUNA-ACEVES ET AL.

Examiner

Dohm Chankong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1> This action is in response to Applicant's amendment and remarks, dated 11.15.2004.

Claims 3 and 4 have been cancelled. Claims 1, 2 and 5-15 are presented for further examination.

Response to Arguments

2> Applicant's arguments, see page 6, filed 11.24.2004, with respect to the rejection(s) of claim(s) 1, 2, 5 and 6 under 35 U.S.C § 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of McCanne et al, U.S Patent No. 6,415,323.

3> Applicant's arguments filed 11.24.2004, with respect to the rejections of claims 7-15 have been fully considered but are moot in view of the new grounds of rejection necessitated by Applicant's amendment ["...and to obtain a copy of the information object at the network layer unicast address."].

Additionally, in regards to the 35 U.S.C 103(a) rejections, Applicant argues that there would be no need to send a failure message to the client when the service node fails because the client is redirected to another service node. As McCanne discloses that the user can reconnect to the service either transparently or with user interaction. In the case where the user manually reconnects to the service, a failure message would be necessary to notify the user that user interaction is required.

Claim Rejections - 35 USC § 112

4> The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5> Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 5 is rejected for containing unclear language that renders the claim indefinite: it is not clear who selects the information object repository.

Claim Rejections - 35 USC § 103

6> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7> Claims 1, 2, 5, 6, 7, 8, 10 and 11 are rejected under 35 U.S.C. § 103(a) as being anticipated by McCanne et al, U.S Patent No. 6,415,323 ["McCanne"], in view of Yamano, U.S Patent No. 6,314,088.

8> As to claim 1, McCanne discloses a method comprising:
receiving a request at an information object repository for an information object at an

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anycast network address and without regard as to whether the information object is actually stored at the information object repository [column 8 «lines 14-23» | column 11 «lines 58-62» where : McCanne's ARN and the service nodes are analogous to repositories. Additionally, McCanne stresses that the only requirement for directing a client to a service node is that the node is the closest to the client; therefore, the implication is that there is no regard as to whether or not the content is on the service node].

resolving the request to a corresponding unicast address for the information object [column 11 «lines 60-62» | column 15 «line 61» to column 16 «line 12» where : McCanne's service nodes have unicast addresses].

McCanne does not explicitly disclose instructing the information object repository to obtain a copy of the information object at the corresponding unicast address.

9> McCanne does disclose that the repository is capable of servicing the clients' requests directly but does not explicitly disclose obtaining a copy at the corresponding unicast address [column 14 «lines 27-32» | column 16 «lines 3-11»]. Yamano discloses a repository (that receives an request for an object at an anycast address) that obtains a copy of the requested information object at a corresponding unicast address [Figure 5 | column 1 «lines 21-30» | column 4 «lines 30-36» | column 5 «line 64» to column 6 «line 15» where : Yamano's configuration server node 11 retrieves the object requested by the client from another server node's ATM address (unicast)]. Therefore Yamano teaches that a repository, that acts as a redirector such as one seen in McCanne, can also retrieve content from other repositories within the network. One of ordinary skill in the art would have been able to incorporate

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Yamano's functionalities into McCanne's repository (redirector) to allow the repository to retrieve content from other repositories at the corresponding unicast address to be able to directly service the request in the future. Since McCanne already teaches that his repository can directly handle content requests, implementing Yamano's teaching would only enhance McCanne's capabilities.

10> As to claim 2, McCanne discloses the method of claim 1 further comprising returning the unicast address for the information object [column 10 «lines 35-43»].

11> As to claim 5, McCanne discloses the method of claim 1 wherein the information object repository is selected according to performance metrics [column 18 «lines 64-67»].

12> As to claim 6, McCanne discloses the method of claim 5 wherein the performance metrics comprise one or more of: average delay from the selected information object repository to a source of the request, average processing delay at the selected information object repository, reliability of a path from the selected information object repository, available bandwidth in said path, and loads on the selected information object repository [column 17 «lines 45-46» | column 18 «lines 64-67»].

13> As to claim 7, McCanne discloses an information object repository configured to resolve a network layer anycast address to a network layer unicast address in response to a

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request for an information object at the network layer anycast address [column 10 <lines 36-50> where: anycast referral node is equivalent to an object repository].

McCanne does not explicitly disclose that the repository obtains a copy of the information object at the network layer unicast address.

14> McCanne does disclose that the repository is capable of servicing the clients' requests directly but does not explicitly disclose obtaining a copy at a corresponding unicast address [column 14 «lines 27-32» | column 16 «lines 3-11»]. Yamano discloses a repository (that receives an request for an object at an anycast address) that obtains a copy of the requested information object at a network layer unicast address [Figure 5 | column 1 «lines 21-30» | column 4 «lines 30-36» | column 5 «line 64» to column 6 «line 15» where : Yamano's configuration server node 11 retrieves the object requested by the client from another server node's ATM address (unicast)]. Therefore Yamano teaches that a repository, that acts as a redirector such as one seen in McCanne, can also retrieve content from other repositories within the network. One of ordinary skill in the art would have been able to incorporate Yamano's functionalities into McCanne's repository (redirector) to allow the repository to retrieve content from other repositories at the network layer unicast address to be able to directly service the request in the future. Since McCanne already teaches that his repository can directly handle content requests, implementing Yamano's teaching would only enhance McCanne's capabilities.

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15> As to claim 8, McCanne discloses the information object repository of claim 7 being further configured to resolve the network layer anycast address by transmitting a request for the network layer unicast address and awaiting a response thereto [column 11 <lines 24-36 and lines 58-65>, column 12 <lines 16-24> and column 13 <lines 35-42>].

16> As to claim 10, McCanne discloses a network, comprising:

at least one client configured to transmit a request for an information object using a network layer unicast address [column 10 <lines 36-43>]; and

an information object repository configured to receive the request for the information object and to resolve the network layer anycast address into a network layer unicast address [column 10 <lines 36-50>].

McCanne does not explicitly disclose that the repository obtains a copy of the information object at the network layer unicast address.

17> McCanne does disclose that the repository is capable of servicing the clients' requests directly but does not explicitly disclose obtaining a copy at a corresponding unicast address [column 14 «lines 27-32» | column 16 «lines 3-11»]. Yamano discloses a repository (that receives an request for an object at an anycast address) that obtains a copy of the requested information object at a network layer unicast address [Figure 5 | column 1 «lines 21-30» | column 4 «lines 30-36» | column 5 «line 64» to column 6 «line 15» where : Yamano's configuration server node 11 retrieves the object requested by the client from another server node's ATM address (unicast)]. Therefore Yamano teaches that a repository, that acts as a

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redirector such as one seen in McCanne, can also retrieve content from other repositories within the network. One of ordinary skill in the art would have been able to incorporate Yamano's functionalities into McCanne's repository (redirector) to allow the repository to retrieve content from other repositories at the network layer unicast address to be able to directly service the request in the future. Since McCanne already teaches that his repository can directly handle content requests, implementing Yamano's teaching would only enhance McCanne's capabilities.

18> Claim 11 is a network that contains the information object repository of claim 8.

Therefore claim 11 is rejected for the same reasons as set forth in above paragraph 12 for claim 8.

19> Claims 9 and 12-15 are rejected under 35 U.S.C 103(a) as being unpatentable over McCanne and Yamano, in further view of an Official Notice.

20> As to claim 9, McCanne discloses the information object repository of claim 7 to monitor if the request for the network layer unicast address is not received within a timeout period [column 13 <lines 35-36>] but does not specifically disclose that a failure message is sent to the source of the request for the information object.

21> Official Notice is taken that it is well known and expected in the art to update the client about the failure of an information request, if that request is not received within a

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certain timeout period. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement this failure message utility into McCanne's information object repository to keep the clients informed that their request for information could not be handled at the specified unicast address and to signal to the user to reconnect to the service after losing the connection.

22> Claim 12 is a network that contains the information object repository of claim 9. Therefore claim 12 is rejected for the same reasons as set forth in above paragraphs 18 and 19 for claim 9.

23> As to claim 13, McCanne discloses the network of claim 12 wherein the request for the network layer unicast address comprises a single IP packet that includes the network layer anycast address [column 3 <lines 57-67> and column 12 <lines 25-30> where: the client request 510 refers back to the 'packet of data'].

24> As to claim 14, McCanne discloses the network of claim 13 wherein the response to the request for the network layer unicast address comprises a single IP packet that includes the network layer unicast address [column 3 <lines 65-67> and column 11 <lines 60-62> where: the redirect message is equivalent in functionality to the IP packet].

25> As to claim 15, McCanne discloses the network of claim 14 wherein the response to the request for the network layer unicast address is returned by a host having the network layer

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unicast address [column 16 <lines 18-26> where: 'S' is the host with the network layer unicast address].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dung C. Dinh
Primary Examiner

DC